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09/636,003	08/09/2000	Andrew J. Layman	MS15520US	5416

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EXAMINER

SHAW, JOSEPH D

ART UNIT	PAPER NUMBER
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2141

DATE MAILED: 10/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/636,003

Applicant(s)

LAYMAN ET AL.

Examiner

Joseph D Shaw

Art Unit

2141

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 August 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-63 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-63 is/are rejected.
- 7) ☒ Claim(s) 6, 12, 13, 15, 16, 22, 30, 31, 33-35, 53, and 54 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 August 2000 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Specification

1. Applicant is required to update the status (pending, patent numbers, etc.) of all parent priority applications in the first line of the specification. The status of all citations of US filed applications in the specification should also be updated where appropriate.

Double Patenting

2. Claims 18, 36, and 48 are objected to under 37 CFR 1.75 as being substantial duplicates of claims 49, 50, and 51 respectively. When two claims in an application are duplicates or else are so close in content that they both cover the same thing, despite a slight difference in wording, it is proper after allowing one claim to object to the other as being a substantial duplicate of the allowed claim. See MPEP § 706.03(k).

Claim Objections

3. Claims 6, 12, 13, 15, 16, 22, 30, 31, 33-35, 53, and 54 are objected to because of the following informalities:

- a. As per claim 6, the phrase "an destination entity." should be "a destination entity."

- b. As per claims 15 and 16, the dependency is placed on claim 4. Dependency is assumed to be on claim 5 due to lack of antecedent basis in claim 4.
- c. As per claim 22, the dependency is placed on claim 17. Dependency is assumed to be on claim 19.
- d. As per claims 33 and 34, the dependency is placed on claim 21. Dependency is assumed to be on claim 23 due to lack of antecedent basis in claim 21.
- e. As per claim 35, the dependency is placed on claim 21. Dependency is assumed to be on claim 22 due to lack of antecedent basis in claim 21.
- f. As per claims 53 and 54, it appears the claims run together. Claim 54 is assumed not to begin until the phrase "A message exchange apparatus comprising:" on line 4.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

- 4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
- 5. Claims 1, 2, 4, 15-17, 19, 20, 22, 33-35, 37-39, 42, 49-55, and 58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly

point out and distinctly claim the subject matter which applicant regards as the invention.

g. Claims 1, 2, 19, 20, 37-39, 49-55, and 58 recite the limitation "the structure." There is insufficient antecedent basis for this limitation in the claim.

h. Claims 4, 22, and 42 recite the limitation "the body." There is insufficient antecedent basis for this limitation in the claim.

i. Claims 15 and 33 recite the limitation "the header tags." There is insufficient antecedent basis for this limitation in the claim.

j. Claim 16 and 34 recite the limitation "the body tags." There is insufficient antecedent basis for this limitation in the claim.

k. Claims 17 and 35 recite the limitations:

- i. "the beginning envelope tag"
- ii. "the ending envelope tag"
- iii. "the beginning header tag"
- iv. "the ending header tag"
- v. "the beginning body tag"
- vi. "the ending body tag."

There is insufficient antecedent basis for this limitation in the claim.

l. Claim 15 recites the limitations:

- vii. "the header"
- viii. "the body."

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 101

6. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1, 2, 4-6, 8-10, 19, 20, 22-28, 37-39, 42-47, and 52-63 rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.

m. Data structures not claimed as embodied in computer-readable media are descriptive material per se and are not statutory because they are not capable of causing functional change in the computer. See, e.g., Warmerdam, 33 F.3d at 1361, 31 USPQ2d at 1760 (claim to a data structure per se held nonstatutory). Such claimed data structures do not define any structural and functional interrelationships between the data structure and other claimed aspects of the invention which permit the data structure's functionality to be realized. In contrast, a claimed computer-readable medium encoded with a data structure defines structural and functional interrelationships between the data structure and the computer software and hardware components which permit the data structure's functionality to be realized, and is thus statutory.

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

9. The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

10. Claims 1, 2, 4, 6, 7, 18- 20, 22, 24, 26, 36-38, 42, 44, 48-55, 58, and 61 are rejected under 35 U.S.C. 102(e) as being anticipated by Fuisz et al. (6,389,455).

n. As per claim 1, 7, 18, 19, 36, 37, and 48-54, Fuisz teaches a message format involving an envelope divided into a header and body (data structures) (col. 4, lines 65-67); and the header containing sending instructions (header is to be processed by sending entities and body by recipient) (col. 5, lines 1-4); the message being sent through the network via a routing hub (intermediate entity) (Fig. 1; col. 3, lines 55-59); and extracting (parsing) the "to" (header) information of a message (col. 5, lines 50-53). Although not explicitly stated in

the disclosure, Fuisz discloses the entities on the network as servers and inherently those servers must have processors for performing tasks.

o. As per claims 2, 20, and 38, Fuisz discloses the claimed invention described above. Although not explicitly stated in the disclosure by Fuisz, it is inherent that the entity intended to process the header and/or body (data structures) must understand the header and/or body.

p. As per claims 4, 22, and 42, Fuisz discloses the claimed invention described above. Furthermore, Fuisz discloses the envelope containing a header and body (col. 4, lines 65-67).

q. As per claims 6, 24, and 44, Fuisz discloses the claimed invention described above. Furthermore, Fuisz discloses the header having sending instructions and being updated by Mail Transfer Agents (intermediate entities) (intended for intermediate entities) (col. 5, lines 2-4); and the intermediate entities only requiring access to the header, not the body (body intended for destination entity, not intermediate entities) (col. 5, lines 29-33).

r. As per claim 26 Fuisz discloses the claimed invention described above. Furthermore, Fuisz discloses the header having sending instructions and being updated by Mail Transfer Agents (request for an intermediate entity to perform a task).

s. As per claim 55 and 61, Fuisz discloses a message format (generated from a sending entity with body data intended for a destination entity) (Fig. 1; col. 3,

lines 55-57; col. 4, lines 65-67); and the header containing sending instructions (data intended for an intermediate entity) (col. 5, lines 1-4). Although not explicitly stated in the disclosure by Fuisz, it is inherent that the entity intended to process the header (data structure) must understand the header.

t. As per claim 58, Fuisz discloses a system for transmitting electronic messages with the messages having a header containing sending instructions (data intended for an intermediate entity) (col. 5, lines 1-4) and a body (col. 4, lines 65-67). Although not explicitly stated in the disclosure by Fuisz, it is inherent that the entity intended to process the header (data structure) must understand the header and that the message is passed on the network in the form of a modulated data signal.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 3, 5, 14-16, 21, 23, 32-34, 41, and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuisz (6,389,455) in view of Connolly (RFC 1866: Hypertext Markup language – 2.0).

- u. As per claims 3, 14, 21, 32, and 41, Fuisz discloses the claimed invention as described above. However, Fuisz does not explicitly teach the envelope having beginning and ending tags. Connolly discloses a document (message) enclosed by HTML (envelope) tags (section 3.4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include tags to define the beginning and end of a document as taught by Connolly in the invention of Fuisz because tags delimit elements and allow for the definition of the content in an element as taught by Connolly (section 3.2.2).
- v. As per claims 5, 15, 16, 23, 33, 34, and 43, Fuisz discloses the claimed invention as described above. However, Fuisz does not explicitly teach the header and body having beginning and ending tags. Connolly discloses a document (message) with a head and body, each defined by their respective beginning and ending tags (section 3.4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include tags to define the beginning and end of elements within a document as taught by Connolly in the invention of Fuisz because tags delimit elements and allow for the definition of the content in an element as taught by Connolly (section 3.2.2).
13. Claims 8-13, 25, 27-31, 45-47, 56, 57, 59, 60, 62, and 63 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuisz (6,389,455) in view of Hemphill et al. (6,167,448).

w. As per claims 8, 25, and 45, Fuisz discloses the claimed invention as described above. However, Fuisz does not explicitly teach the data structures requesting an entity to perform a task. Hemphill discloses a messaging system wherein the document (body) data structure includes executable code (task) to be performed by the target (entity) (Fig. 3; col. 10, lines 63-66). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include executable code intended for the entity in the data structure as taught by Hemphill in the invention of Fuisz because the executable code allows for a plurality of possible actions to be taken in response to events (col. 2, lines 38-41).

x. As per claims 9, 10, 27, 28, 46, 47, 56, 57, 59, 60, 62, and 63 Fuisz discloses the claimed invention as described above. However, Fuisz does not explicitly teach the data structures being expressed in a markup language, namely XML. Hemphill discloses the messages being written in a markup language (col. 1, lines 40-41) and more specifically written in XML (col. 1, lines 45-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to write the messages in a markup language such as XML as taught by Hemphill in the invention of Fuisz because XML provides a flexible and powerful method of notification of management events (col. 1, lines 48-52).

- y. As per claims 11-13 and 29-31, Fuisz discloses the claimed invention as described above. However, Fuisz does not explicitly teach formatting the message to be sent over the network via HTTP, or binding the message to an HTTP request or response. Hemphill discloses formulating the message into an HTTP post transaction (formatting and sending the message over the network via HTTP) (col. 2, lines 7-10, lines 27-30). However, Hemphill does not explicitly teach binding the message to an HTTP response or request. "Official Notice" is taken that both the concept and advantages of binding a message to be sent over a network to an HTTP response or request are well known and expected in the art. It would have been obvious to one of ordinary skill in the art at the time the invention was made to include 1) formatting the message to be sent over the network via HTTP as taught by Hemphill and 2) binding the message to an HTTP response or request in invention of Fuisz because it would allow for transmission to the management server (entity) as taught by Hemphill (col. 2, lines 27-30).
14. Claims 17 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuisz as applied to claim 4 above, in view of Connolly (RFC 1866: Hypertext Markup language – 2.0) and further in view of Hemphill et al. (6,167,448).

z. As per claims 17 and 35, Fuisz discloses the claimed invention described above. However, Fuisz does not explicitly teach formatting the message with beginning and ending tags to identify the envelope, header, or body. Connolly teaches formatting a document (message) that includes beginning and ending

HTML (header) tags, beginning and ending HEAD (header) tags, and beginning and ending BODY tags, each identifying their respective data element (section 3.4). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include tags to define the beginning and end of elements within a document as taught by Connolly in the invention of Fuisz because tags delimit elements and allow for the definition of the content in an element as taught by Connolly (section 3.2.2).

However, the Fuisz/Connolly invention described above does not explicitly teach the data being expressed in XML. Hemphill discloses the messages being written in XML (col. 1, lines 45-47). It would have been obvious to one of ordinary skill in the art at the time the invention was made to write the messages in XML as taught by Hemphill in the Fuisz/Connolly invention because XML provides a flexible and powerful method of notification of management events (col. 1, lines 48-52).

15. Claim 39 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuisz (6,389,455) in view of Allen Jr. (3,825,905).

aa. As per claim 39, Fuisz discloses the claimed invention described above. However, Fuisz does not explicitly teach the receiving entity informing the sending entity that it did not understand the structure. Allen Jr. teaches a communications process where a character is sent from a remote terminal indicating that it did not understand the poll (structure) (col. 23, lines 51-53). It

would have been obvious to one of ordinary skill in the art at the time the invention was made to include sending notification of non-understanding as taught by Allen Jr. in the system of Fuisz because such notification would allow for a more reliable communications system.

16. Claim 40 is rejected under 35 U.S.C. 103(a) as being unpatentable over Fuisz (6,389,455) in view of Postel (RFC 793: Transmission Control Protocol).

bb. As per claim 40, Fuisz discloses the claimed invention described above. However, Fuisz does not explicitly teach sending a response message. Postel discloses a messaging protocol that includes positive acknowledgement from a receiving entity (sending a response to a sending entity) (Section 1.5, Reliability). It would have been obvious to one of ordinary skill in the art at the time the invention was made to include sending an acknowledgement response as taught by Postel in the system of Fuisz because it would allow for the system to recover from damaged or lost data as taught by Postel (Section 1.5, Reliability).

Conclusion

17. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

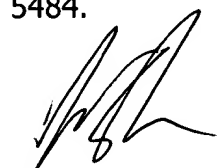
cc. Hamilton (6,125,399) teaches the generation of an envelope in a communications system.

- dd. Jones (5,742,763) teaches message envelopes and the extraction of pertinent information there from.
 - ee. Padgett (5,577,202) teaches generating and transmitting message envelopes.
 - ff. Cohen et al. (4,837,798) teaches message envelopes and headers in a message transmission protocol.
 - gg. Douceur et al. (6,185,568) teaches a message envelope with header and body for message transmission.
 - hh. Hall (5,930,479) teaches message transfer with envelopes, headers and bodies.
 - ii. Okimoto et al. (6,268,926) teaches message transfer of envelopes with headers and bodies.
 - jj. Crocker (RFC 822: Standards For the Format of ARPA Internet Text Messages) teaches messages formatted with a header and body, the header used to direct messages through a network.
18. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph D Shaw whose telephone number is 703-305-0094. The examiner can normally be reached on Monday - Thursday, 6:30 AM - 4:00 PM, and on alternate Fridays.

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19. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia can be reached on 703-305-4003. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

20. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-306-5484.



JDS



RUPAL DHARIA
SUPERVISORY PATENT EXAMINER